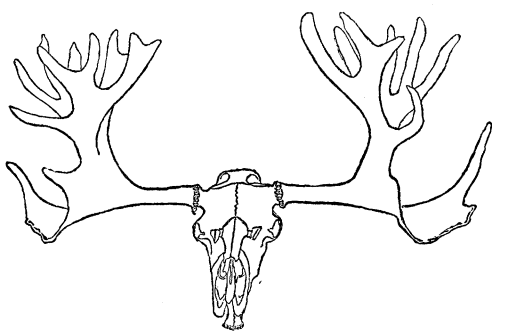
phia academy, consists of a broken cranium, some fragments of antlers, and two metacarpals. Assuming the correctness of this identification, a very short examination of the Princeton skeleton suffices to show that the species in question is most distinctly not a Cervus at all, but is much more like an Alces. It is, however, sufficiently different from the last-named form to necessitate the formation of a new genus for its reception. For this I have proposed the name Cervalces, which serves to indicate its relationship. The specific name given by Harlan must, of course, be retained, so that the full name will be Cervalces americanus.



HEAD OF CERVALCES FROM THE FRONT, REDUCED 1-25.

Cervalces was a very large animal, with large head, short neck and trunk, and exceedingly long legs (much longer than in the great Irish deer). The antlers are palmated, though far less so than in the moose, as in that form they have horizontal beams, no brow-antlers, and a dichotomous division of the tines; but they do possess, as the moose-antler does not, a bezantler, and a posterior tine given off from the beam opposite to it. These processes occur in the antlers of Dama (the fallow deer) and Megaceros (the extinct Irish deer). In Cervalces the two tines named are connected by a flaring process of bone, which descends below the level of the eye, and present a most peculiar type of antler, altogether different from any thing known in any member of the deer tribe.

The nasal bones are much longer, and the nostrils much smaller, than in the moose, showing that there was no such proboscis-like snout as in that animal. The premaxillae are shaped as in the stag, and join the nasals. The skull is broader and shorter than in the moose, and in many respects like that of the true deer. There are also cervine features in many parts of the skeleton, together with peculiar characters. Cervalces agrees with the moose, and differs from the stags, in having the lower ends of the lateral metacarpals present (Telemetacarpalia of Brooke).

Altogether, the fossil gives us much welcome light on the obscure relationships of the moose to the other members of the deer family, showing that that curious form was derived from a type very like Cervus, but having the lateral metacarpals complete throughout. Cervalces is not one of the steps of direct descent, but it shows what that descent must have been.

It is certainly a very remarkable fact that an animal which in quaternary times was probably most abundant in this country should be represented in the collections by only two specimens. The superb specimen at Princeton is practically a perfect skeleton; for, except two or three caudal vertebrae, the few missing bones are represented by their fellows of the opposite side. The skeleton has been most skilfully restored and mounted by Curator F. C. Hill. A full description, with plates, will shortly appear in the Proceedings of the Philadelphia academy.

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GEOGRAPHICAL NEWS.

REV. WILLIAM E. FAY of the west central African mission contributes three small maps of the route between Benguela and Bihé to the *Missionary herald*. The trail was surveyed with a prismatic compass, the distances determined by the pedometer, and altitudes along the line checked by observations for the boiling-point. The route was passed over four times; and the maps, while confessedly approximations only, form a distinct advance over the reconnoissance made by Cameron, which, up to the present time, has been the only authority for this region. The new sketches cover an area about sixty miles wide north and south, and extending some four degrees in longitude. The changes of scenery between Benguela and the interior are numerous and striking. First, the route passes along the level sands of the coast, under a tropical sun. From Catumbella it strikes inland, ascending the highlands at once, and traversing a rocky desert which separates the coast from the fertile lands beyond, rich in tropical verdure. Still ascending, the well-remembered features of the temperate zone are seen on every side. Descending, at the eastern foot of the range are the first human habitations. About one hundred miles from the coast, the Bailombo River, in wet seasons, is spanned by a native bridge, whose builders take toll, as in more civilized lands. The mission village lies in about east longitude 16°, and south latitude 12° 15′, south-east from the *ombola* of Kwikwi, ruler of the Bailundu region. This is a broad and beautiful valley, densely populated, and lying eastward from a

region of mountains estimated to rise in peaks of from five to eight thousand feet, the source of numerous important rivers, whose mouths are often separated by great distances, and whose courses trend to almost every point of the compass, from the mountain reservoirs where they take origin.

Late advices from Zanzibar state that the four explorers sent to the Ussagara by the German colonization society have been very unfortunate. They halted between Mpuapua and Condoa, where one died. Dr. Peters and Herr Baumann, stricken with malignant fevers, were obliged to return to Zanzibar in a serious state, while the leader of the party was left alone on the spot in a condition of great destitution. Aid was immediately despatched by the German traders of Zanzibar, which, it is hoped, will ameliorate his condition.

Two other German explorers, the brothers Denhart, sent by the Berlin geographical society, had arrived at Zanzibar, where they were joined by Herr Schlumke, for the last five years an explorer with Dr. Fischer.

The party intend to visit Samburo Lake, and explore the region of the Borani Gallas, as well as to explore the geology and botany of the upper parts of Kilimanjaro and Kenia.

The death of King Mtesa is confirmed. Those interested in the civilization of the country believe his successor will be more likely to assist in the process than the late king, whose volatility and caprice more than undid the good resulting from his occasional favors. Mirambo, sometimes known as the negro Napoleon, is also dead. He was noted for his courage, great intelligence, and semi-civilization. His death is likely to plunge the population of a vast region into anarchy; for by his ability, in spite of his humble birth, he had brought into submission a large territory, and made all the neighboring sultans his vassals.

The Algerian fathers have selected a healthy spot for their mission on the west bank of Lake Tanganyika, at a village called Chonsa, in about latitude 7° 30′. The natives are friendly, and the country a safe one.

Lieut. Becker's expedition had not started, and the difficulty of getting a sufficient number of porters was very great. This seemed due to the famine, which continues to desolate the interior, and to the uncertainties connected with matters in the basin of the Kongo.

A rumor has reached Paris through Bolivia, from the Gran Chaco region, that certain country-people, travellers in the interior, had found in the forest bits of paper and linen on which one of the Crevaux party had written his name in blood, together with an appeal for succor, and the statement that he had been spared by the Tobas on account of his skill as a musician, and had been obliged to follow the band which held him captive in all their wanderings since the massacre. The story, which has found a place in the printed proceedings of the geographical society of Paris, is, nevertheless, probably an invention of the 'travellers in the interior.'

An important journey has recently been made by a party commanded by Feilberg on behalf of the Argentine Confederation. Their object was to explore the trade-route between that country and Bolivia *via* the Pilcomayo. They comprised sixty-two men, with flatboats towed by two small steamers, and were absent fifty-five days. The actual distance in a direct line was probably forty-five leagues; but, taking the sinuosities of the river into account, the party travelled about eighty leagues. Up to this point, the navigation was not bad except for snags and sunken tree-trunks in the channel, but here it became impossible on account of a series of rapids which descend over a rocky surface with only a few inches of water, though the river was in flood. The question of a trade-route by this way is therefore definitely settled in the negative. The party found that below the rapids, sixty leagues above the mouth, a large affluent came into the Pilcomayo, with as much water, or perhaps even more, but which is not found on any chart. It was obstructed by sunken trees, but otherwise showed no impediments, and was ascended for twelve leagues. Feilberg hopes to explore it farther. The country along these rivers appeared healthy, and rich with fine pasturage. It appears now to be certain that the only feasible trade-route will be one carried overland.

THE AMERICAN FISHERIES SOCIETY.

THE fourteenth annual meeting of this society was held in the lecture-room of the National museum at Washington, May 5–7; the president of the society, Hon. Theodore Lyman, in the chair. The attendance throughout was fair, and the papers were, for the most part, exceedingly interesting. The roll of membership now includes about a hundred and fifty names, twenty-four new members having been elected during the meeting.

Prof. R. E. C. Stearns read a paper on the giant clams of Puget Sound. He referred to Glycimeris generosa as the 'boss clam' of North America. It was first described by Dr. Augustus A. Gould from specimens (probably of the shells only) obtained by the Wilkes exploring expedition, 1838–42. The distribution of this clam extends southerly along the west coast of America to San Diego, where it has been found by Mr. Hemphill; and it is more abundant in its northern than in its southern habitat. It is an excellent article of food, and is called by the Indians *geoduck*. It has been known to attain a weight of sixteen pounds, and a length of from one and a half to two feet.

A paper by Dr. James A. Henshall, on the hibernation of the black bass, was read by Mr. Mather. The writer advanced the theory that hibernation was a voluntary act, and did not necessarily involve a state of profound torpidity. He admitted that other fish were active in the same waters where black bass were hibernating, but accounted for this by saying that there was no supply of food for the bass. In the